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ABSTRACT

An Index of Development Potential based primarily on the success communities have had in passing bond issues is suggested in this paper. Ten Texas communities were studied using an index composed of 3 measures: the ratio of bond issue success, total bond expenditure per capita, and labor force potential. A composite score was derived from these measures for each community. Tentative conclusions were that the suggested Index of Developmental Potential was internally consistent and that the variables appeared to be indicative of the developmental potential of communities. Suggestions for future research were that other researchers be encouraged to suggest other relevant dimensions which might indicate a community's potential for development and that research should be directed towards relating structural characteristics of communities to the Index of Developmental Potential. (PS)

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# AN ANALYSIS OF BOND ISSUE ELECTIONS AS INDICATORS OF SOCIO-ECONOMIC DEVELOPMENT POTENTIAL

James D. Preston and Danette Spiekerman
Assistant Professor and Research Associate
Department of Agricultural Economics and Sociology
Texas A&M University

## Introduction

The future of smaller communities in the United States is uncertain. Each national census has shown an increasing trend in rural to urban migration. At least two interpretations of this trend are available. One view is that the decline in rural populations is inevitable and that our future lies in the continued growth of cities. Implicit in this interpretation is that the smaller communities should be allowed to die as peacefully (and as soon) as possible. A second interpretation is that we should revitalize rural areas and the smaller communities. This view is tied in with the problems accompanying urban growth and the great population density of cities. Former Secretary of Agriculture Orville Freeman suggested that the federal government should encourage metropolitan to small town migration in order to relieve congestion and other central city problems. Another view has been that we "ruralize" or decentralize industry and get industries to locate in smaller communities. Such decentralization would have two effects: (1) it would slow down the out-migration of rural residents, particulary of rural youth, and thus would help revitalize rural areas; and (2) if we could encourage some urban residents to relocate in small towns, perhaps adjacent to the metropolitan areas, this relocation would help alleviate some of our urban problems, such as congestion, air pollution, and poor health conditions. However, such a plan has not been utlilized in the United States except by accident, such as when a large corporation or government installation has moved its quarters from a metropolitan area to a smaller community.

However, even if one accepts the decentralization notion as being a good idea, it appears that very little work has been done on developing a scheme whereby industries or the agencies of the federal government can systematically choose the smaller communities in which to relocate. Intuitively, we know that communities differ; that is, some are dying while others are prospering. The question then becomes, "How can we distinguish one type of community from the other?" The authors maintain that the success of bond issues is one dimension that will help us distinguish the viable community. The purpose of this paper thus is to suggest an Index of Development Potential based primarily on the success communities have had in passing bond issues.

## Selection of Communities

Ten Texas communities were selected for this study primarily on the basis of two criteria, population size and population increase. The communites represented a range of populations from approximately 9,000 to 100,000. In addition, the selected communities represented a 1950-1960 population growth rate ranging from 238 percent increase to only 5 percent increase. Furthermore, the selection of the communities to be studied was guided by our access to community data relevant to the research problem. The ten final selections are presented below with their 1960 populations and their 1950-1960 population increase:

| | | | | | |
|---|---|---|---|---|---|
| Andrews | 11,135 | 238.0% | Crystal City | 9,101 | 26.4% |
| Midland | 62,625 | 162.6% | Conroe | 9,192 | 26.0% |
| Odessa | 80,338 | 116.1% | Kerrville | 8,901 | 15.7% |
| Big Spring | 31,230 | 80.7% | Tyler | 51,230 | 15.6% |
| Bryan | 27,542 | 52.1% | Kilgore | 10,092 | 4.7% |

## Index of Developmental Potential

The Index of Developmental Potential was composed of three measures: the ratio of bond issue success, total bond expenditure per capita, and labor force potential.

### Ratio of Bond Issue Success

The ratio of bond issue success was determined by the proportion of the number of bond issues that passed to the toal number of bond issues voted on during the years 1958-1968. These data were recorded from the Texas Bond Reporter. The community with the highest proportion of bond issues passed was ranked first and the other communities were ranked consecutively. The communities' rankings on bond issue success are as follows: Andrews 1.5, Crystal City 1.5, Big Spring 3.5, Bryan 3.5, Tyler 5.0, Conroe 6.0, Kerrville 7.0, Midland 8.5, Kilgore 8.5, Odessa 10.0.

### Bond Expenditure Per Capita

The bond expenditure per capita was an attempt to measure the proportion of capital outlay each community spent in each bond issue area. All the bond issues which were recorded in the Texas Bond Reporter during the decade studied were listed. These issues then were grouped into the following bond issue areas: (1) airport, (2) courthouse, city hall, and jail, (3) hospital, (4) park and recreation, (5) road and street improvements, (6) school building, and (7) water-works and sewer systems. Special issues such as city auditorium or city coliseum were omitted from this part of the analysis since they occurred infrequently. The total amount of all the bonds passed in each issue area was computed for each community. The bond expenditure per capita was determined by dividing the total amount by the total

population relevant to each issue area. In other words, the expenditure per capita for the areas of (1) airport, (2) courthouse, city hall, and jail, (3) hospital, (4) road and street improvements, and (5) school building was determined by using the 1960 county population since these bond issues were voted on by the county residents; similarly in the other two areas, (1) park and recreation and (2) waterworks and sewer systems, the 1960 city population was used.

The next step involved the ranking of each community by bond issue area according to the highest expenditure per capita in each bond issue area. The rankings of each community in all bond issue areas then was totaled, and on the basis of the total, the final ranking was determined for each community. The final rankings of the communities on expenditure per capita are presented below: Andrews 1.5, Conroe 1.5, Tyler 3.0, Midland 4.0, Big Spring 5.0, Odessa 6.0, Crystal City 7.0, Bryan 8.0, Kerrville 9.0, Kilgore 10.0.

Labor Force Potential

The basic assumption of this measure was that an industry would be more interested in locating in an area which had a readily available labor supply than in an area that did not. This measure, therefore, was constructed to indicate the availability of labor supply. Although the type of labor (male or female) desired would necessarily depend on the type of work to be performed, for the purpose of this investigation, the type of labor was not differentiated.

The criterion for determining the labor force potential of each community was based on the county's labor force as recorded in the 1960 Census of Population. This measure was computed by dividing the number of unemployed males and females in the labor force by the total number of males and females in the labor force. This yielded the percent of the labor force that was unemployed in each county. Then the counties were ranked according to the highest percent unemployed. This yielded the following results: Zavala 1.0, Ector 2.5, Montgomery 2.5, Andrews 6.0, Howard 6.0, Brazos 6.0, Smith 6.0, Gregg 6.0, Midland 9.0, Kerr 10.0.

Compilation of the Index

Since the Index of Developmental Potential was composed of the three measures---ratio of bond issue success, bond expenditure per capita, and labor force potential---a composite score was derived from these measures for each community. The composite score was simply the total of each community's ranking on each of the measures as presented in Table 1. The total then determined each community's final ranking on the Index of Developmental Potential.

Rather than assuming that the three measures composing the Index of Developmental Potential were related to each other when in fact

Table 1. Index of Developmental Potential

| Communities | Ratio of Bond Issue Success | Total Bond Expenditure Per Capita | Labor Force Potential | Total | Final Ranking |
|---|---|---|---|---|---|
| Andrews | 1.5 | 1.5 | 6.0 | 9.0 | 1 |
| Midland | 8.5 | 4.0 | 9.0 | 21.5 | 8 |
| Odessa | 10.0 | 6.0 | 2.5 | 18.5 | 7 |
| Big Spring | 3.5 | 5.0 | 6.0 | 14.5 | 5 |
| Bryan | 3.5 | 8.0 | 6.0 | 17.5 | 6 |
| Crystal City | 1.5 | 7.0 | 1.0 | 9.5 | 2 |
| Conroe | 6.0 | 1.5 | 2.5 | 10.0 | 3 |
| Kerrville | 7.0 | 9.0 | 10.0 | 26.0 | 10 |
| Tyler | 5.0 | 3.0 | 6.0 | 14.0 | 4 |
| Kilgore | 8.5 | 10.0 | 6.0 | 24.5 | 9 |

mind is distance from a metropolitan area.

Two suggestions for future research are indicated by our effort. First, other researchers are encouraged to suggest other relevant dimensions which might indicate a community's potential for development. Second, several structural characteristics which differentiate "types" of communities have been suggested by Bonjean et al. (1969) Future research should be directed toware relating these structural characteristics of communities to our Index of Developmental Potential (along with suggested modifications others might make).

## References

Bonjean, Charles M., Harley L. Browning, and Lewis F. Carter.
1969 "Toward Comparative community research: a factor analysis of United States counties." The Sociological Quarterly 10 (Spring): 157-176.

they could have been three separate entities, the correlation of the three measures was determined by Spearman's Rank Correlation. The Rho value for the three measures are as follows: ratio of bond issue success and bond expenditure per capita Rho value equals .928; labor force potential and ratio of bond issue success Rho value equals .929; expenditure per capita and labor force potential Rho value equals .924. Each of the three measures was correlated significantly beyond the .01 level of probability. Therefore, it was concluded that the three measures were related to each other and that they were used together appropriately as an Index of Developmental Potential. According to the index, Andrews and Crystal City had the greatest developmental potential whereas Kerrville and Kilgore had the least.

Further note should be taken about differences in types of bond issues that occurred in each community. For example, within the span of a decade the community of Andrews held bond issue elections in seven major areas of community development---airport, courthouse, city hall and jail, hospital, park and recreation, road and streets, schools, and waterworks and sewer system. Furthermore, all the bond elections passed on the first vote. Tyler also passed bond issues in seven areas of community development. On the other hand, communities such as Crystal City passed bond issues only in a minimum number of areas; more specifically, these areas included the basic needs of the community---water and sewer, schools, and streets. While at the same time between 1961 and 1965 Crystal City passed three bond issues for remodeling the courthouse, the remodeling actually did not take place until 1968. At that time, the cost of construction had increased so much that it necessitated a fourth bond election for a sum nearly two and one-half times as much as the original bond. Noting these differences seemed to indicate that while some communities were developing in all areas of community life, other communities were active only in the areas that are vital to its life.

## Conclusions

The present study is largely exploratory, thus any conclusion must be regarded as tentative. However, some general conclusions and suggestions for future research can be drawn.

First, it appears that our suggested Index of Developmental Potential is internally consistent. That is, the communities appeared to vary similarly on the three measures used in constructing the index.

A second conclusion is that the variables, bond issue success, total bond expenditure per capita, and labor force potential, appear to be indicative of developmental potential of communities. If one accepts the basic assumption of our study, that communities can be classified according to their developmental potential, it appears that our three variables represent a relevant dimension to consider. We do not claim that these represent the only dimension of a community's potential for development. Another dimension that comes readily to